

IOWA MONTHLY WEATHER SUMMARY – JULY 2010

General Summary. Iowa temperatures averaged 74.7° or 0.9° above normal while precipitation totaled 8.11 inches or 3.86 inches more than normal. This ranks as the 55th warmest and 5th wettest July among 138 years of records. A warmer July was last recorded in 2006 and a wetter one in 1993.

Temperatures. Warm and humid weather was the rule for most of the month. Temperature extremes, thanks to high humidity and plentiful cloudiness, were subdued with a statewide range from only 53° to 98°. The lowest temperatures were recorded at Anamosa, Elkader, Lowden, Mapleton and Maquoketa on the 2nd, at Maquoketa again on the 3rd, and also at Sibley on the 8th, 15th and 21st. Ankeny was the hot spot on the 14th. The statewide minimum temperature of 53° is the highest July minimum since at least 1879. Only July 1993 has seen a smaller range in temperatures (50° to 94°). High humidity resulted in exceptionally high heat indices which officially reached as high as 115° at Ames on the 14th and 110° at Burlington on the 23rd.

Cooling Degree Day Totals. Home air conditioning requirements, as estimated by cooling degree day totals, averaged 157% greater than the record low July total of one year ago and 9% more than normal. Cooling degree day totals so far this year are running 81% greater than last year and 9% more than normal.

Precipitation. The first three days of July were dry but that was not a sign of things to come as precipitation was frequent and heavy for the remainder of the month. Although July rainfall was not as great as in June it was more concentrated in short periods of time which resulted in greater flooding. The largest rain event of the month came on the night of the 22nd when Oelwein officially recorded 9.93 inches of rain. An additional three to four inches of rain fell over the same areas of northeast Iowa the next night. The result was record flooding along the Maquoketa River and the destruction of Lake Delhi. Monthly precipitation totals varied from 3.86 inches at Bedford to an exceptional 20.33 inches at Oelwein. The Oelwein total far exceeded their previous wettest month of 13.30 inches in June 1925 among 87 years of records. Guttenberg also reported their wettest calendar month among 80 years of record with a total of 11.20 inches (old record of 11.16 in May 2004). Major flooding also occurred in Appanoose County where Lake Rathbun Dam reported 6.89 inches of rain on the night of the 4th and another 5.80 inches on the night of the 19th on the way to a monthly total of 16.20 inches of rain. Greatest flooding occurred after the second rain event when the water level exceeded the spillway with the Rathbun lake level cresting on July 24 just 4.7 inches lower than the record set on July 28, 1993. Monthly precipitation totals were above normal at all but 6 of the 134 stations with long-term records. The few drier locations were mostly in the southwest.

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